WALLOWA-WHITMAN
SPECIAL PROJECT SPECIFICATION (2/06)

T-811F BLADING

811.01 Description -

This work consists of surface blading the traveled way to a condition to facilitate traffic and provide proper drainage. Blading includes shaping the crown or slope of traveled way, berms, and drainage dips in accordance with this specification. Compaction is required when shown on the Road Listing.

811.02 Maintenance Requirements

A. Timing - Perform surface blading during the contract period as often as needed to provide conditions stated for the maintenance level of the road.

B. General -

1. Blade and shape the existing traveled way, ditches, and shoulders, including turnouts, to produce a surface which is uniform, consistent to grade, and crowned or cross-sloped as indicated by the character of the existing surface, unless otherwise shown in the Road Listing, to at least 13 mm (½ inch) per .305 meter (1 foot) of width, but not more than 19 mm (¾ inch) per .305 meter (1 foot) of width. Thoroughly loosen surfacing material to no less than 50 mm (2 inches) depth or the depth of potholes or corrugations. Scarification to facilitate cutting to the full depth of potholes or corrugations may be elected, but will be considered incidental to blading. Do not scarify deep enough to cause contamination of the surfacing.

2. Apply water during blading when sufficient moisture is not present to prevent segregation. Supply, haul, and apply water in accordance with Section T-891F.

3. Shape existing native rock or aggregate surfaced drainage dips to divert surface runoff to existing outlet devices, ditches, or discharge locations.

4. Establish a blading pattern which provides a uniform driving surface, retains the surfacing on the roadbed, and provides a thorough mixing of the materials within the completed surface width. Upon final blading, no disturbed rock shall protrude more than 50 mm (2 inches) above the adjacent surface unless otherwise provided in the contract. Remove and place outside the roadbed material not meeting this dimension so as not to obstruct drainageways or structures. This material may be scattered off the roadbed if there is free drainage.

C. Routine Blading -

1. Conform to the dimensions SHOWN IN CONTRACT PROVISION C(T)5.31#.

2. Shape roadbed width in excess of the dimensions shown only as needed to provide drainage away from the traveled way. Do not remove established grasses and other vegetation from the excess width except as incidental to providing drainage or unless otherwise provided in the contract.

D. Compaction -

When compaction is required, the method of compaction will be as shown in the Road Listing [C(T)5.31#]. Compaction shall commence immediately following blading.

Compaction methods are:

Compaction Method A: By breaking track while operating equipment on the traveled way.

Compaction Method B: 7-9 metric ton (7-10 ton) pneumatic, steel, or equivalent vibratory roller, operated to cover the full width two (2) times.

E. Undercutting - Undercutting roadway back slope is not permitted.

F. Intersections

1. At intersections, blade the roadbeds of side roads which are not closed or restricted from vehicular use to ensure smooth transitions. Maximum distance not to exceed 15 m (50 feet) onto adjacent roads.

2. Blading shall not be required of intersecting roads if roads are listed under C(T)5.31 Sections T-838F, or T-839F. This includes any roads with signing, cross ditching in the road surface (traveled way), earth berms, or other devices placed to discourage or eliminate use.

G. Cleaning of Structures - Do not allow materials resulting from work under this Section to remain on or in structures, such as bridges, culverts, cattle guards, or drainage dips.

H. Berms - Maintain existing berms to the condition of adjacent segments. Do not create new berms (windrows).

I. Smooth blading - Smooth blading may be used as an interim measure to remove loose surfacing material from the wheel paths, and store removed materials in a recoverable windrow, until blade processing as described in this section is feasible. Watering will not be required for smooth blading. Accomplish smooth blading without distorting the existing cross-slope or crown of the traveled way.

Move and store loose surfacing materials on the high side of super-elevated curves and sections with uniform inslope or outslope. In crowned sections, store the material on either or both sides as elected. Windrow and place stored materials to provide not less than 3.6 meters (12 feet) of smooth traveled way on one-lane segments, or 6 meters (20 feet) of smooth traveledway on two-lane segments, or segments with turnouts. Cut holes through windrows, which may collect water on the road, for drainage at least every 150 meters (500 feet).

WALLOWA-WHITMAN
SPECIAL PROJECT SPECIFICATION (2/06)

T-831F DITCH MAINTENANCE

831.01 Description

This Section provides for routine maintenance of various types of ditches to provide a waterway which is unobstructed, as shown on the road listing or marked on the ground.

831.02 Maintenance Requirements

A. Maintain ditches by removing rock, soil, wood, and other materials. Maintained ditches shall function to meet the intent of the original design.

B. Undercutting backslopes during removal operations is not permitted.

C. Suitable material up to 100 mm (4 inches) in greatest dimension removed from the ditches may be blended into existing native road surface and shoulder or placed in designated berm.

D. Do not blend material from ditch cleaning operations into aggregate surfaced roads. Do not blade material across aggregate or bituminous surfaced roads, unless approved in writing by the Government.

E. Haul material in excess of 831.02 D or subject to 831.02 E to a designated waste area under Section T-832F. Remove excess materials temporarily stored on the ditch slope or edge of the shoulder daily.

F. Remove limbs and wood chunks in excess of 300 mm (12 inches) in length or 75 mm (3 inches) in diameter from ditches and place outside the roadway.

G. Clean paved surfaces of all materials resulting from ditch maintenance work.

H. Shape lead-off ditches to drain away from the traveled way.

WALLOWA-WHITMAN
SPECIAL PROJECT SPECIFICATION (2/06)

T-832F REMOVE AND END HAUL MATERIALS

832.01 Description

Work consists of loading, hauling, and placing of slide, slough, or excess materials such as rock, soil, vegetation, and other materials to designated disposal sites.

832.02 Maintenance Requirements

A. Remove, end haul, and dispose of excess materials generated by work under other Sections of this contract.

B. Remove the slide and slough materials in the area extending approximately 2 meters (6 feet) vertically above the road surface and not more than 1 meter (3 feet) downslope from the roadbed.

Disposal locations for material generated under this specification shall be staked on the ground by the Forest Service, unless otherwise shown below:

Disposal Site(s): *Locations will be agreed to on the ground by ER or FSR*

Material shall be placed by Method _1__, as listed in D..

Reshape the slope which generated the slide material as nearly as practical to its original condition by equipment operating from road surface. Reshaping of roadside ditches in slide area shall be in accordance with Section T-831F.

C. When approved by the Government, fill slumps by compacting selected materials into roadway depressions. Compaction is by Method 2.

D. Disposal methods are listed below:

1. Method 1 - Side Casting and End Dumping. Material may be placed by side casting and end dumping. Where materials include large rocks, provide a solid fill by working smaller pieces and fines into voids. Shape the finished surfaces to drain.

2. Method 2 Layer Placement - Step or roughen surfaces on which materials are to be placed prior to placing any material. Place materials in approximately horizontal layers no more than 300 mm (12 inches) thick. Compact each layer by operating hauling and spreading equipment over the full width of each layer.

E. Repair any damage to existing aggregate or pavement surfaces.

WALLOWA-WHITMAN
SPECIAL PROJECT SPECIFICATION (2/06)

T-834F DRAINAGE STRUCTURE MAINTENANCE

834.01 Description

This work consists of cleaning and reconditioning culverts and other drainage structures.

834.02 Maintenance Requirements

A. Clean drainage structures, inlet/outlet structures, culverts, catch basins, and outlet channels when there are obvious obstructions, impediments, or diversions to water flow. Material shall be removed from catch basins in accordance with Drawing #CB-1. All removed material shall be disposed of in accordance with T-832F.

B. Clean the transition from the ditch line to the catch basin a distance of 3 meters (10 feet) from the catch basin. Clean outlet channels and lead-off ditches a distance of 2 meters (6 feet). Remove and place debris and vegetation so as to not enter the channel or ditch, or obstruct traffic. Haul debris and vegetation to a designated disposal area in accordance with Section T-832F.

C. Hydraulic flushing of drainage structures is not allowed unless approved in writing by the Forest Service.

D. Cleaning and reconditioning are limited to the first 1 meter (3 feet) of inlet and outlet, determined along the top of the structure. Recondition culvert inlet and outlet by field methods such as jacking out or cutting away damaged metal which obstructs flow. Treat cut edges with a zinc rich coating to reduce or eliminate rusting, in accordance with manufacturer's recommendations.

E. Specific drainage maintenance requirements are shown on the Drainage Maintenance Listing (DML):

DML Attached ☐

No DML Attached ☑

* Performance of the maintenance shown the DML, unless specifically stated, does not relieve the contractor of the requirement to perform maintenance as shown in A, above.

WALLOWA-WHITMAN
SPECIAL PROJECT SPECIFICATION (3/08)

T-836F MAINTENANCE FOR LIMITED USE

836.01 Description

This work consists of making limited use roads passable for JOINT use by Purchaser and high clearance vehicles, and providing drainage from the traveled way and roadbed.

836.02 Maintenance Requirements

A. Traveled Way

Purchaser may smooth or fill existing cross ditches and waterbars and by agreement modify existing road junctions to enable vehicle access. Prior to beginning haul and resumption of haul after an extended stoppage:

1. Remove brush, fallen trees, rocks, and other debris from traveled way, including turnouts, turnarounds, and other locations that interfere with needed maintenance as follows:

a. No object extending over 100 mm (4 inches) above the road surface shall remain within the 3.6 m (12 feet) usable traveled way and 3 m (10 feet) turnout widths. Center the usable width on the roadbed or position away from the fill slope.

b. Cut and remove standing or down trees, logs, brush, and limbs from within the area described in 1 (a) above. Remove encroaching limbs to a height of 4.2 m (14 feet) above the traveled way surface. Scatter material not meeting utilization standards outside and below the roadbed on the fill side. Limb and buck timber meeting utilization standards in accordance with contract provisions and deck at approved locations. Volume shall be estimated and documented prior to a written agreement for removal in accordance with contract provisions.

c. Place all removed materials away from drainage's.

d. During use, maintain drainage structures, including dips, ditches and culverts in a useable condition.

2. Clean and recondition drainage facilities in accordance with: Section T-831F and T-834F.

B. Slough and Slides

1. Slough and slides may be left in place, provided surface drainage is provided and at least 3.6 m (12 feet) of width is available for vehicle passage.

2. Purchaser may reposition or ramp over slides and slough when the traveled way is less than 3.6 m (12 feet) providing the material is capable of supporting vehicles. Limit outslope to no more than six percent.

3. Reposition slough or slide materials on the roadbed which are not capable of supporting a vehicle to provide the 3.6 m (12 feet) width. When directed by Forest Service, slough or slide material will be removed under Section T-832F.

C. Slumps and Washouts

1. Drain the roadbed immediately upgrade of slumps and longitudinal cracks to prevent water from entering slump area.

2. Slumps and longitudinal cracks at the edge of the roadbed shall not be considered a part of the usable width. Usable width may be reduced to 3 m (10 feet) in the area of the slump.

3. Unless Forest Service agrees to material being placed on slumps, ramp the slumps on both ends into undisturbed roadbed to provide at least 3 m (10 feet) usable width. Use removed materials to guide vehicles to the ramp location or to aid in draining the area.

4. Washouts may be filled with suitable material.

D. Posthaul

At the end of hauling or prior to entering into seasonal shutdowns or a period of extended inactivity:

1. Shape the traveled way and disturbed roadbed to provide functional drainage.

2. Reinstall removed cross ditches and waterbars and provide any additional drainage structures necessary to offset changes caused through use and maintenance. Reference drawing(s) as indicated in C(T) 5.31#.

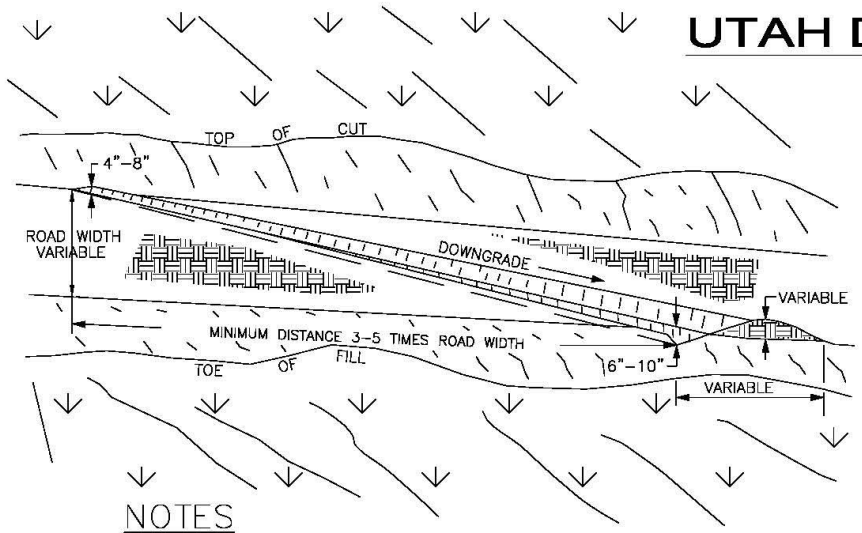
Drawing #UD-1

3. Leave roads useable for high clearance vehicles. Remove or reshape purchaser modifications at road junctions to leave the entrance as it was before use, or as agreed at the time of improvement.

DRAWING #UD–1

UTAH DIP DETAIL

NO SCALE



NOTES

1. ALL UTAH DIPS SHALL BEGIN AT THE INTERSECTION OF THE ROADBED AND CUT SLOPE AND RUN ACROSS THE ENTIRE WIDTH OF THE ROADBED.
2. ALL UTAH DIPS SHALL HAVE FREE FLOWING OUTLETS.
3. WHEN STAKES ARE USED, THEY SHALL DESIGNATE THE OUTLET LOCATION.
4. **UNLESS LOCATIONS ARE STAKED BY THE FOREST SERVICE,** THE FOLLOWING TABLE SHALL BE USED AS A GUIDE.

DRAINAGE SPACING TABLE

SPACING ALONG ĈO(BASED ON SOIL EROSION GROUP 3)

DOWN GRADE (IN %)	UNSURFACED (IN SMU*)	1/ SURFACED (IN SMU*)	2/ SURFACED/UNSURFACED (OUTSIDE SMU*)
2	105 FT.	160 FT.	USE ENGINEERING SPACING GUIDE (BUT IN NO PLACE MORE THAN 500 FT. ALONG ô), OR AS STAKED BY THE FOREST SERVICE
4	90 FT.	140 FT.	
6	80 FT.	125 FT.	
8	75 FT.	115 FT.	
10	65 FT.	100 FT.	
12	55 FT.	85 FT.	
14	45 FT.	70 FT.	
16	35 FT.	55 FT.	
18	30 FT.	45 FT.	
>20	30 FT.	30 FT.	

1/PIT RUN OR GRID ROLLED > 25% FINES

2/CRUSHED ROCK, PIT RUN, OR GRID ROLLED W/ < 25% FINES

* SMU = STREAMSIDE MANAGEMENT UNIT:

SMU WIDTH

Class I through IV Streams — 150 Ft. each side for sideslopes < 30%; 200 Ft. each side for sideslopes > 30%

SMU GUIDELINES

When a road is within 25 Ft. of a stream and parallels stream for more than 300 feet, decrease spacing by 25%.

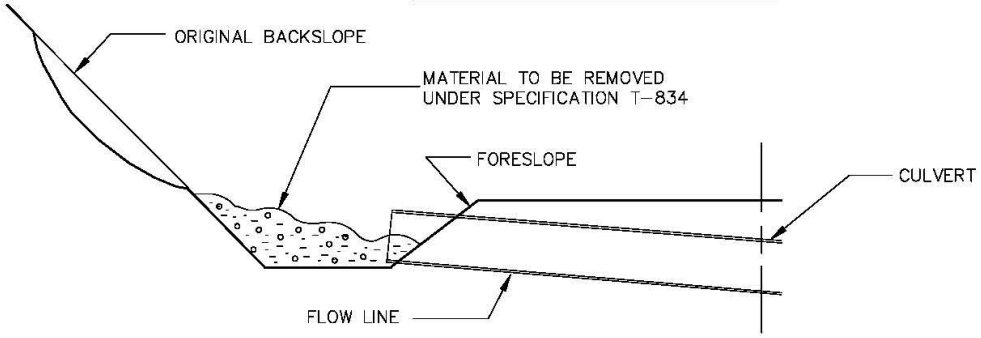
Where a road is grading down towards a stream, locate the last cross–drain at about 10–30 Ft. from stream (depending upon filtering capability at the outlet); place the next cross–drain upgrade at 75% of the spacing guide value.

If road has drainage ditch, extend cross–drains to intercept the runoff.

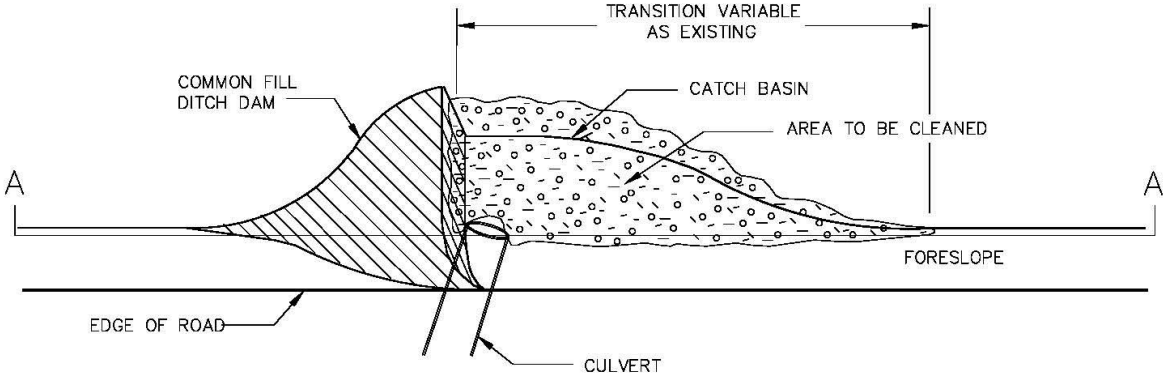
CLEANING OF DITCH RELIEF CATCH BASIN AND TRANSITION

DRAWING #CB-1 (NO SCALE)

CROSS SECTION VIEW



PLAN VIEW ALONG DITCH



SECTION A-A